Manuscript Title: '' **Enhancement of The Dissolution Profile of Diuretic Hydrochlorothiazide by Elaboration of Microspheres Based on Ethylcellulose, Polycaprolactone, β-Cyclodextrin and Synthesized Polymethylmethacrylate as Matrices for Delivery of Poorly Water Soluble Drug**

RUNNING TITLE

KINETIC STUDY OF THE CONTROLLED RELEASE OF HYDROCHLOROTHIAZIDE

The attempt of this manuscript is to prepare microspheres formulations for sustained and prolonged release using microencapsulation by solvent evaporation method. The effects of the microparticles’ characteristics; namely the particle size and nature of the matrix and release kinetics were also studied. By comparing the total seven formulations, a better release of HCTZ was obtained for the formulation 5, which gives complete liberation after two hours in intestinal medium. The latter is the favorable medium for the dissolution of HCTZ compared with the gastric medium. The results also showed that the pharmacological effect of HCTZ in formulation 7 (lot 7) was increased by solubility improvement promoted by cyclodextrin.

The *Journal of Serbian Chemical Society (JSCS)* publishes original research articles, review articles and scientific commentaries on all fields of chemistry with emphasis on conceptual novelty and scientific quality. More specifically, the Journal accepts publication reports on pharmaceutical and medicinal chemistry.

For these reasons, we have chosen *'’J. of Serb. Chem. Soc*.'' (*JSCS*) for publication.

We certify that we have participated in this work and we agreed to have names listed as contributors: the present study was prepared by Ms LARBI Oum Cheikh, [PhD student](http://www.linguee.fr/anglais-francais/traduction/PhD+student.html)  directed by Mrs. H. MERINE (Professor in the University of Sidi Bel Abbes Algeria). M Y. RAMLI (Professor in Mohamed V University, Rabat, Morroco) and Mrs F. TOUMI, (Professor in the University of Sidi Bel Abbes Algeria).

We certify also that this manuscript has not been submitted to any other journal.

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